



Indiana State Department of Health

Epidemiology Resource Center

Quick Facts

About...Arbo-viral Disease

What is arbo-viral encephalitis?

Arbo-viruses are a group of viruses that are spread in nature by arthropods (insects and related animals) when they bite animals and humans. In the United States, the insects that mostly transmit diseases are mosquitoes.

Some of these arbo-viruses can cause severe illness, such as swelling of the brain.

How are arbo-viruses spread?

People become infected by the bite of a mosquito or tick. In the United States, ticks transmit two kinds of arbo-viral disease, Colorado tick fever and Powassan fever. These tick-borne diseases have never been reported in Indiana.

Mosquitoes are known to transmit 18 viral diseases in North America. The most common mosquito-borne diseases in the United States are Eastern equine encephalitis, Western equine encephalitis, West Nile virus, St. Louis encephalitis, and LaCrosse encephalitis. All of these diseases have been reported in Indiana except Western equine.

How do I know if I have arbo-viral disease?

You cannot tell without seeing your health care provider. Your health care provider will complete a history, review of signs and symptoms, physical exam, and lab testing to confirm if you have an arbo-viral disease.

What are the symptoms of arbo-viral disease?

Depending on the virus, many infections may go unrecognized or cause a very mild illness. Some people will have a flu-like illness lasting for a few days. Others may have the signs and symptoms of encephalitis, which include: fever, personality changes and confusion, abnormal reflexes, muscle weakness, paralysis, and

seizures. Those with more severe illness may have a long recovery and may have lifetime problems. Death may occur in less than 1% of cases (West Nile virus) or up to 30% of cases (Eastern equine encephalitis).

How is arbo-viral disease treated?

The treatment is supportive to control and reduce symptoms and prevent dehydration. Antibiotics are not effective against viral infections. There are no anti-viral agents to treat arbo-viral disease.

How is arbo-viral disease prevented?

Arbo-viral disease can be prevented by avoiding the bites of mosquitoes or ticks.

- Avoid being outdoors during the hours of dusk to dawn when mosquitoes are most active;
- Avoid high grass and brushy areas where ticks may be present;
- Take personal protective measures;
 - Wear long sleeves and long trousers with cuffs stuffed inside top of socks to cover skin for mosquitoes to bite or areas for ticks to attach.
 - Use an insect repellent with DEET on clothing and exposed skin.
- Make changes outside your home to reduce places for mosquitoes and ticks to breed;
 - Clean gutters and empty water-holding containers such as buckets, tires, birdbaths, wading pool, and flower pots to reduce mosquito breeding sites.
 - Cut weeds and brush from your yard to reduce places for ticks to hide.

All information presented is intended for public use. For more information, please refer to: <http://www.cdc.gov/ncidod/dvbid/arbor/index.htm>

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